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Have Wages Kept Pace with the Cost of Living?

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IN attempting an answer to this question it is necessary, at the outset, to examine the terms used and the general form of the inquiry. Let us take up in order, therefore, three points of definition: "Wages," "Cost of Living," and the *period* during which it is proposed to compare the movements of the two factors.

THE MEANING OF WAGES AND THE COST OF LIVING

Wage Rates and Actual Earnings

First, with regard to wages: It is quite evident that higher wages paid in a sufficiently depreciated currency might leave the recipient poorer than before. It is nearly as obvious that high money wages in an era of high prices may confer only an illusory prosperity upon the wage earner. Here is the real point of this inquiry. We wish to ascertain whether *real* wages have been rising or falling, for in a time like the present it is unlikely that they could have remained wholly stationary. For any period during which the prices of the items for which the worker expends his income have risen more than has his money wage, we must conclude that real wages have fallen. Conversely, for any period during which the wages of the worker have risen more than has the cost of his customary budget, for such a period there has clearly been an increase in real wages.

Another phase of the definition of wages should be noticed. It concerns

the distinction between the wage rate and actual earnings. The former is stated in terms of cents per hour, dollars per week or month, or dollars or cents per unit of work performed; the pay envelope, however, contains a sum of money, the amount of which depends in part upon considerations other than the wage rate. If a machinist earned 50 cents an hour, assuming an eight hour day, and worked overtime at time and a half on week days and double time on Sundays, he might earn by working 10 hours a day, under war conditions, not merely 48 x 50 cents or \$24 a week, but, in addition, he would be paid for two hours of overtime (for which he would receive three hours pay) each week day. This would amount to 18 hours a week; if he worked 10 hours on Sunday also, he would be paid for 20 hours' work. His overtime and Sunday work would, therefore, net him 38 hours at 50¢, or \$19, in addition to the \$24 earned during regular time. His pay envelope would thus contain \$43 for a week's work.

Suppose now, that the machinist's "pay," *i.e.*, his rate, receives a rather extreme increase of 50 per cent, which advances him to 75 cents an hour, and, at the same time, the shop in which he is employed returns to its former 48-hour week. He will now find that his pay envelope contains \$36 (48 x 75 cents). This is 16 per cent less than he had been receiving. Thus, a 50 per cent increase in the wage *rate*, coupled

with a shortening of the work-day and the cutting out of the Sunday earnings, leaves him not richer in point of income, but poorer by about one-sixth.

Not only variations in the length of the working day, but also all sorts of interruptions of the worker's efforts affect his actual earnings. Sickness of the worker, or sickness in his family, lack of employment, the temporary breakdown of machinery, strikes, shortage of materials, and other causes beyond the control of the individual worker reduce earnings considerably in certain circumstances. For example, the fuel administrator's closing order in January, 1918, clipped 5 per cent from the average weekly earnings of the factory workers of New York State for that month, while in November of the same year the closing of factories on Armistice Day reduced the average weekly earnings during November between 3 per cent and 4 per cent.¹ Wage rates, therefore, considered apart from earnings, give us only an incomplete idea of the situation of the wage earner. It is equally true that earnings also present an imperfect picture in some respects. The report of the National Industrial Conference Board on *Wartime Changes in Wages* points out that "weekly earnings are less reliable in showing wage trend than are hourly earnings, since the latter are less likely to be affected by such factors as labor turnover, absenteeism and overtime."² This is true, if by "wage trend" we understand the movement up or down of the *rates* at which labor is remunerated. During periods when the

number of hours in the normal working day remain constant, the movement of rates affords a fair indication of the condition of the workers, provided the fluctuations in the amount of employment, due to other causes, are of such a sort as to cancel one another. But it is significant that a permanent shortening of the normal working week has accompanied the recent rise of prices. "The eight-hour movement has made rapid gains during the past four years," and "in the last three years the general observance of the Saturday half-holiday has reduced the 48-hour week to 44 hours."³ All comparisons, therefore, between the hourly rates of 1913 or 1914 and those of the present time must take account of a probable shortening of the working week, which operates to discount the increase in the actual weekly earnings by as much, in some occupations, as 15 per cent.

Cost of Living

Another term requires a word of explanation. The cost of living cannot be satisfactorily ascertained by a comparison of index numbers derived from the wholesale prices of commodities in general. The workman does not buy at wholesale, and he buys a particular assortment of consumers' goods and services. Let us consider for a moment the so-called family budget. The adult workman whether American or foreign-born is prospectively, if not actually, the main support of an average family, and competes in the labor market with other heads of families. Hence, it has become customary to consider

¹ See *Labor Market Bulletin* (N. Y. State Industrial Commission), December, 1919, p. 6.

² *Supra*, p. 108.

³ See *Monthly Labor Review*, November, 1919, pp. 194-95.

the wages of adult male workers from the point of view of their adequacy to support an average family consisting of wife and three children of school age. What such a family group requires, in order to live in simple comfort under American conditions, is in process of definition at the present time, and while conditions and customs vary somewhat from section to section, standards of an American standard of living are in the way of working out to a reasonably harmonious conclusion. At this point it is necessary simply to indicate the relation which exists between price movements and fluctuations in the cost of living.

Increased Prices and Family Budgets

In order to compare the cost of a given family budget at two different periods, it is necessary to use either (1) a standard list of actual goods and services which, on the average, an American family of five will require, or (2) the percentages of income which workmen ordinarily expend for the several classes of necessities entering into a family budget. In case a standardized list is available, as in the valuable study published in October, 1919, by William C. Beyer and his assistants for the Bureau of Municipal Research of Philadelphia,⁴ all that is necessary at different dates, or in different localities, is to fill in the current costs of the items enumerated, to make the comparisons, and to draw conclusions as to changes in the cost of living. As a matter of fact, most of the studies of the cost of living fail to give us completely detailed speci-

cations regarding the expenditures of families at any level of comfort. They do tell us, however, the *proportion of income* which is expended for food, for clothing, for rent, for fuel and light, and for other major items. On the basis of such percentages it is possible to revise cost of living estimates, and bring them down to date. The following table⁵ indicates the way in which increased prices affect the cost of a family budget:

ESTIMATED PER CENT OF INCREASE IN COST
OF LIVING IN THE UNITED STATES FROM
1913 TO OCTOBER, 1919

Items of Expenditure	Per Cent of Total Expenditure	Average Per Cent of Increase in Prices from 1913 to October, 1919	Per Cent of Increase as Applied to Family Budget
Food.....	38.2	80.70	30.8
Clothing.....	16.6	139.30	23.1
Housing.....	13.4	17.75	2.4
Fuel and light....	5.3	45.07	2.4
Furniture and furnishings.....	5.1	139.62	7.1
Miscellaneous....	21.3	81.31	17.3
Total.....			83.1

Translated arbitrarily into dollars, this table tells us that in a \$1,000 family budget, an estimated sum of \$382 will go for food; and, since food prices have risen 80.7 per cent this item will now cost \$308 additional. Clothing in such a budget will cost \$231 more than in 1913; rent, \$24; fuel and light, \$24, etc. Added together, these necessary additions to the cost of living total \$831. In other words, the skilled wage earner who

⁴ *Workingmen's Standard of Living in Philadelphia*, Macmillan and Co., 1919.

⁵ See "Changes in Cost of Living in the United States, 1913, to October, 1919," in *Monthly Labor Review*, January, 1920, pp. 97-98.

formerly supported his family on \$1,000 (a wage of say \$3.33 a day) will now require \$1,831 if he is to provide them with as good a living as in 1913. This is equal to a new wage of \$6.10 a day, which on this showing appears to be the 1919 equivalent of a 1913 wage of \$3.33, assuming in both cases a working year of 300 days. Similarly the smaller budget of a less skilled worker, which might have been \$600 in 1913, would (assuming for the moment the approximate accuracy of these percentages) need to be increased to \$1,098 in 1919, in order to cover the same quantity and quality of items. Such are a few of the general considerations connected with the terms *wages* and the *cost of living*.

There remains the problem of the period during which it is proposed to institute comparisons between the movements of these two factors. The recent and rapid phase of these movements began about the second half of 1915, but it is preferable to compare the last year of world peace, 1913, with the present, so far as it is possible to do so. The changes from 1913 to 1915 are so slight that the differing dates used in various investigations within this period do not create serious difficulties.

A point, sometimes overlooked, concerns the movement of prices and of wages during the decade and a half preceding the war. It will be recalled that the prices of the period of the Spanish-American War (the closing years of the last century) had been left behind long before the beginning of the recent sharper increases. Some attention, therefore, should be paid to this longer period stretching back to the end of the nineties.

POSITION OF THE WAGE EARNER IN 1913

A number of careful studies published about the beginning of the war appear to agree in the general conclusion that during the opening decade and a half of the present century, the actual purchasing power of American wages had been declining. Lauck and Sydenstricker⁶ conclude that full-time weekly wages increased, on the average, between 25 and 30 per cent during the period from 1900 to 1915, but the cost of maintaining a family in 1913 without change of standard was 35 per cent greater than in 1900. W. I. King,⁷ writing of the effect of continued heavy immigration upon real wages during the decade 1900 to 1910, expresses the following view: "The evidence, then, indicates that all the entrenchments of organized labor, all the legislation in favor of the working class, all of our new inventions have failed to prevent the invaders from forcing down the commodity wages of American labor." In another passage we read: "From 1865 to 1896, the general trend of real wages was very steadily toward higher levels, except for temporary backsets. After 1896, the progress upward ceased and, since 1906, there are some suspicious indications of a general decline. The important feature is that the ascent has been checked, and that, right in the face of the greatest industrial development that the world has ever seen."⁸ Streightoff,⁹ also, calls

⁶ Lauck and Sydenstricker, *Conditions of Labor in American Industries*, 1917, pp. 378 ff.

⁷ King, W. I., *The Wealth and Income of the People of the United States*, 1915, p. 179.

⁸ *Supra*, p. 193.

⁹ *The Standard of Living Among the Industrial People of America*, 1911, p. 48.

attention to the fact that the "retail prices of food are advancing so rapidly that, for the last decade, there has been no gain in the real wages of persons employed in manufacture." The reference is to the ten years ending in 1907.

H. P. Fairchild in a study entitled *The Standard of Living—Up or Down?*¹⁰ is apparently in accord with the authors already cited: "The writer is well aware that the foregoing data do not prove that the common laborer's family was better off in 1890 than in 1908. . . . But he does believe that they furnish very strong evidence in support of that proposition." I. M. Rubinow,¹¹ writing in 1914, goes even farther: After an exhaustive examination of the wage and retail price data of the Department of Labor, he arrives at the conclusion that between 1890 and 1912, real wages ("purchasing power measured by retail prices of food"), on the basis of weekly earnings, fell in the ratio of 99.4 to 85.3, the average of 1890-99 being rated 100. Retail food prices constitute only one of the items in a family budget, yet inasmuch as it is the largest single item, namely, about 40 per cent of the total, these results have a certain amount of significance. His conclusions are in general agreement with those of other writers cited above. He finds that "in years of falling or even slowly rising prices, the American wage worker was able to hold his own or to improve his condition to a slight extent. But when confronted with a rapidly rising price movement . . . the

American wage worker . . . has been losing surely and not even slowly, so that the sum total of economic progress of this country for the last quarter of a century appears to be a loss of from 10 to 15 per cent in his earning power."¹² He contends further that a positive drop in the standard of living has been prevented only by "(1) smaller families, (2) rapid development of woman labor, (3) increase in employment of married women." Parmelee¹³ agrees with this conclusion which he says "may seem startling and hard to believe, yet it is corroborated by the results of other investigations of the same question."

If we consider only the years of the present century, therefore, we are probably justified in concluding that the American worker found himself, at the outbreak of the World War, handicapped by a slight but unmistakable decline in the purchasing power of his wages. They sufficed to buy somewhat less than had the wages of the year 1900.

EXTENT OF THE RECENT INCREASE IN THE COST OF LIVING

Reference has already been made to the estimate of the Bureau of Labor Statistics concerning the percentage increase in the cost of a weighted list of items comprising a family budget. It will be recalled that the increase from 1913 to October, 1919, figured out at 83.1 per cent. All of these items, however, except the food prices, were derived from wholesale price index numbers¹⁴ and are in so far

¹⁰ *American Economic Review*, 1916, pp. 9-25.

¹¹ "The Recent Trend of Real Wages," in *The American Economic Review*, December, 1914, p. 793.

¹² *Ibid.*, p. 813.

¹³ *Poverty and Social Progress*, 1916, p. 363.

¹⁴ See *Monthly Labor Review*, January, 1920, p. 97.

unsatisfactory, yet, on the whole, it is probable that this calculation presents a substantially accurate picture of recent changes. It does not differ greatly from certain other estimates with which comparison is possible. Thus the estimate of the National Industrial Conference Board¹⁵ of 73 per cent is for a slightly shorter period, July, 1914, to July, 1919; it has been pointed out, moreover, that "the study made by the National Industrial Conference Board was carefully done, but, with the exception of food prices, most of the prices and rent data were gathered solely by correspondence with clothing stores, real estate dealers, etc., and it is believed that any error resulting from this method of collecting data would be on the side of unduly conservative quotations."¹⁶

Cost of Living in Washington, D. C.

Several local studies of much value should be noted in this connection. The cost of living in the District of Columbia has been made the subject of an investigation by the United States Bureau of Labor Statistics,¹⁷ which led to the conclusion that from 1913 to November, 1919, the percentage of increase was 88.4 per cent. This is a study based upon the percentage of income paid out for the several items of expenditure, and apparently involved the collection, locally, of retail prices for these items, although the account is not entirely specific upon this point. Rent increased in the District only 3.4 per

cent during the entire period, so that this item cannot be held accountable for the high total increase found. No doubt, conditions in the capital city are unrepresentative in other respects, due to the relatively high average income of the white population of the city.

Cost of Living in Philadelphia

The investigation of the cost of living undertaken in Philadelphia, under the auspices of the Bureau of Municipal Research, throws some light upon the rising cost of the family budget. The authors of this report conclude that a budget which had cost in Philadelphia \$1,069.94 in 1913-14 could be purchased in the autumn of 1918 for \$1,751.¹⁸ This is the equivalent of a 64 per cent increase, and runs fairly close to the estimates of the Bureau of Labor Statistics for the same period. For from July, 1914, until June, 1918, the latter's figures show an increase of 56 per cent, and from July, 1914, until December, 1918, an increase of 72 per cent.¹⁹ The Philadelphia increase up to the "autumn" of 1918 is midway between the Bureau of Labor Statistics estimates for June and for December of that year.

Cost of Living in Peoria, Ill.

Another local investigation of much interest is that of the Holt Manufacturing Company of Peoria, Ill. This was carried out as a preliminary to a general revision of wage rates, in

¹⁵ *Research Report*, Number 19, "Changes in the Cost of Living," p. 25.

¹⁶ Hanna, Hugh S., in the *Monthly Labor Review*, October, 1919.

¹⁷ See *Monthly Labor Review*, January, 1919, pp. 98-99.

¹⁸ *Workingmen's Standard of Living in Philadelphia*, a Report by the Bureau of Municipal Research of Philadelphia, William C. Beyer, in charge, 1919, p. 7.

¹⁹ Hanna, Hugh S., in the *Monthly Labor Review*, October, 1919, p. 8.

accordance with the increased cost of living. The method employed in this study and the results obtained are described by Messrs. Williams and Holt under the title "The Cost of Living in Relation to Wage Adjustments" in the *Bulletin of the Taylor Society* for October, 1919. The prices of foods, clothing, fuel, shelter, etc., were ascertained from local retail dealers under conditions of personal knowledge on the part of the investigators who thus kept close to their facts; this should ensure a high degree of accuracy in the results obtained. In summarizing the cost of living phase of the investigation, the authors find as follows: "Combining the four principal essentials of cost of living, that is, food, clothing, fuel and shelter, we found the total daily cost of living for the years 1913, 1915, 1917, 1918 and 1919. The result was that the same articles, used in the same quantities by the standard family of five throughout those years, could be purchased in 1913 for \$4.06, whereas in May, 1919, those same articles would cost \$7.39, an increase of 81.6 per cent in daily living cost from the base year, 1913, to May, 1919."

This result has the advantage of being derived wholly from carefully weighted *retail* prices, not only for the several food items, but for all the items entering into its composition. It has also the advantage of being based upon data obtained on the ground, rather than by the less satisfactory method of questionnaires sent by correspondence to dealers in distant localities. It was worked out, moreover, in close collaboration with the consumers—employees of the company—whose assistance was invoked

as needed by the investigators. From May, 1919, to October, 1919, retail food prices in the United States increased about 1.6 per cent; it is probable, therefore, that if this study were brought down to October, 1919 (the date of the Bureau of Labor Statistics index number of 83.1 mentioned above), it would be necessary to increase very slightly the Peoria index number. It chances that as the two index numbers stand, there is a difference of only 1.5 points between them. In spite of the fact that the Peoria index number is a purely local one, it is believed that it is not too unrepresentative of the country generally. The increase in rentals, an item differing from city to city as much as any of the constituents in a family budget, amounted to 24.3 per cent in Peoria. Assuming that housing costs 13.4 per cent of the total expenditure, as explained above, we would have an increase in the cost of the Peoria budget attributable to rent of 3.25 per cent. The increase due to housing in the Bureau of Labor index number was 2.4 per cent. The correction, therefore, for exceptional housing conditions in Peoria would appear to be less than 1 per cent.

In view of the foregoing considerations, it would appear that 83 per cent is not an excessive estimate for the increased cost of living between the year 1913 and the late autumn of 1919. Since then, the cost of the 22 articles in the Bureau of Labor Statistics retail price list has increased from the index number 188 for October, 1919, to 201, for January, 1920, or 7 per cent.²⁰ During the past six years

²⁰ Press releases, U. S. Bureau of Labor Statistics.

the aggregate percentage increase in the cost of food at retail has about equalled the percentage increase in the cost of the budget generally. It is not improbable, therefore, that the 7 per cent increase in the retail price of food between October last and January of this year reflected an increase in the cost of living, generally, of about that amount.

EXTENT OF THE RECENT RISE IN WAGES

As stated above, wage statistics consist partly of wage rates and partly of actual earnings. There is available a certain amount of material of both sorts. In comparison with the cost of living data, that bearing upon wages is complicated in the extreme due to the extraordinary differences in the extent to which workers in the several industries and in the various occupations within these industries have received increased wages. Hanna and Lauck in January, 1918,²¹ pointed out many of these discrepancies. The following items will illustrate this point; they are taken from a table setting forth relative wages in leading occupations, December, 1917, over 1914-15, rates for 1914-15 being 100:

Compositors and Linotype operators (newspapers, day)	106
Hodcarriers (plaster tending)	112
Mining (anthracite)	118
Silk industry (earnings)	140
Common labor (iron and steel)	160
Woolen manufacturing (earnings)	170
Blacksmiths (Ship Yards, Delaware River)	205

The war, it is evident, brought increased pay to labor in greatly differing degrees. The fact of this uneven-

²¹ *Wages and the War*. See especially pages 3-11; the figures quoted above are taken from page 6.

ness from calling to calling makes generalizations about wage increases take on a certain aspect of unreality, for, while the "average worker" may have had his pay raised, say 80 per cent for the sake of illustration, the millions of concrete individuals behind the shadowy average have received either more or less, perhaps very much more or very much less, of an increase.

This uneven participation in rising wages is apparent even as among entire industries, as the following index numbers for eight leading industries clearly reveal.²²

RELATIVE EARNINGS PER HOUR IN SPECIFIED INDUSTRIES INDEX NUMBERS FOR SPRING, 1919; 1913 = 100

Hosiery and underwear	184
Silk goods	191
Clothing, men's	171
Lumber (sawmills only)	194
Mill work (sash, doors, etc.)	151
Furniture	154
Cigars	152
Iron and steel	221

The bureau states that the cost of living index number most nearly comparable with these wage index numbers is 175; this being the case, it will be noted that four of these industries show wage increases greater than that in the cost of living, while four show increases smaller than that in the cost of living. These figures tell us nothing about weekly or annual earnings.

Computed on the same basis (1913 = 100) the wages of farm labor had already in 1918, reached points ranging from 155 to 178, according to which of several different methods of hiring were employed.²³ This corresponds

²² See *Monthly Labor Review*, November, 1919, p. 191-93, and January, 1920, pp. 140-41.

²³ *Monthly Labor Review*, November, 1919, pp. 193-94.

roughly to the advance registered by the cost of living up to that time, which reached an index number of 158 in June, 1918, and 174 in December of the same year.²⁴ Data for 1919, unfortunately, are not yet available. Railway wages also appear to be keeping up with the higher costs; from the year ending June 30, 1915, to July, 1919, the average hourly compensation of the numerous classifications of railway labor which are paid by the day increased 97 per cent. We are told, however, that owing to the introduction of the eight-hour day, the railroad employe did not receive an actual increase in his earnings such as this percentage of increase in rates would indicate.²⁵ The wage rates of anthracite miners, on the other hand, appear to have risen but 50 per cent between 1913 and 1919, while the rates of bituminous pick miners in the basing district of the central competitive field, rose but 35 per cent, during the same period when the cost of living increased about 77 per cent.²⁶ Probably the most complete and most useful collection of authoritative wage statistics bearing upon the period of the war is that published by the Bureau of Applied Economics, at Washington, entitled *Wages in Various Industries—A Summary of Wage Movements During the War*. The following data relative to union rates in the building trades are taken from this source (page 13):

PER CENT INCREASE OF HOURLY RATES IN
VARIOUS CITIES, 1914-19

Bricklayers.....	30.9
Carpenters.....	53.9

²⁴ Supra, November, 1919, pp. 193.

²⁵ Supra, December, 1919, pp. 229-30.

²⁶ Supra, December, 1919, pp. 225-26.

Cement workers and finishers.....	36.3
Inside wiremen.....	51.4
Painters.....	60.8
Plasterers.....	32.2
Plumbers.....	50.0
Sheet metal workers.....	56.2
Steam fitters.....	51.6
Structural iron workers.....	51.7

The increase in the cost of living during this period was a little over 70 per cent.

A very valuable study of *Wartime Changes in Wages* is that prepared by the National Industrial Conference Board. Not only relative hourly but also weekly earnings are given for eight leading industries. The figures are for a single weekly payroll period only in each year, but comprise establishments employing in the neighborhood of 150,000 workers. The weeks selected were generally the third week in September for the years 1914 to 1918, and the first week in March, 1919.²⁷ Assuming the weekly earnings in September, 1914, to be 100, those of March, 1919, were found to be as follows for male workers only:

Metal manufacturing industries.....	188
Cotton manufacturing industry.....	171
Wool manufacturing industry.....	162
Silk manufacturing industry.....	193
Boot and shoe industry.....	176
Paper manufacturing industry.....	176
Rubber manufacturing industry.....	210
Chemical manufacturing industry.....	204

(The index numbers for *hourly* earnings differ from the above figures materially; they average about 10 points higher.)

The cost of living index which the report regards as comparable with these wage figures, namely, the board's index number for March, 1919, was

²⁷ National Industrial Conference Board, *Research Report Number 20*, p. 1.

161.3.²⁸ The index number of the Bureau of Labor Statistics, for this date, however, based on September, 1914, would be 172.²⁹ Therefore, in March, 1919, weekly earnings in these establishments were, in most cases, abreast or well in advance of the cost of living. In general, these figures present a somewhat more favorable picture of the wage earner's position than do those of the Bureau of Labor Statistics for October, 1919, referred to above.

Another series of relative wages can be computed from the payroll data gathered by the Bureau of Labor Statistics, and published under the title *Employment in Selected Industries*. Thus, by dividing the total payroll disbursement in a given industry on a certain date by the total number of workers employed at that date, it is possible to arrive at a sort of average of earnings, which can be compared in one year with the corresponding item in a later year. In the plants comprised in the list below there were employed in October, 1915, some 429,000 persons, and in April, 1919, although the establishments reporting were not wholly identical, there were 453,000 persons. Taking the average earnings calculated in this way for October, 1915, as 100, the relative earnings in April, 1919, were as follows:³⁰

Cigar manufacturing.....	149
Hosiery and underwear.....	152
Silk.....	153
Boots and shoes.....	156
Cotton finishing.....	169

²⁸ Supra, pp. 100-101.

²⁹ See *Monthly Labor Review*, November, 1919, p. 193.

³⁰ See *Monthly Labor Review*, December, 1916, p. 9 and June, 1919, p. 125.

Men's ready made clothing.....	183
Car building and repairing.....	186
Cotton manufacturing.....	189
Iron and steel.....	193
Woolen industry.....	206

During the same period the cost of living reached 169, assuming October, 1915, as equal to 100. Of the ten industries, therefore, four lagged behind the cost of living, one had average earnings just abreast of it, and five exceeded it in the extent of their wage increases.

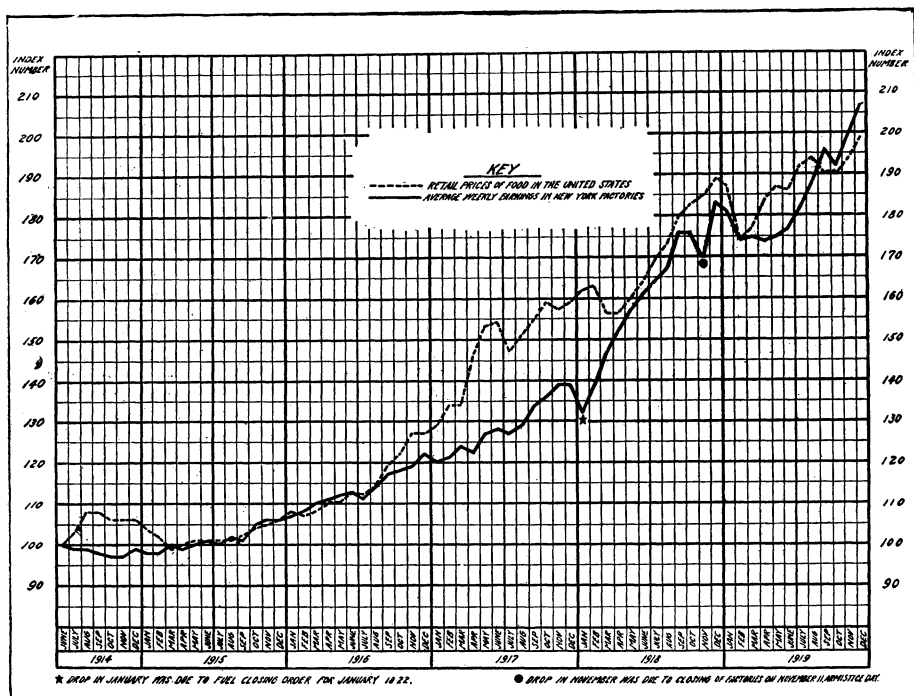
If this series of comparisons is continued to November, 1919, the last month for which figures are now available, a considerable further increase in earnings appears in all of these industries; in fact, the boot and shoe industry seems to be the only one in which earnings were not well in advance of the cost of living at the end of the stretch from October, 1915, to November, 1919.

The studies on which the last three series of relative wages are based differ at so many points, particularly as to the selection of establishments in the several industries, that no great amount of agreement is to be expected. If, however, all of the recent data thus far cited on the subject of wages were assembled in a single descriptive chart or table, this much at least would appear: the metal manufacturing industries, chemicals, rubber, lumber, and possibly railway labor have received wage increases greater than that in the cost of living; the anthracite and bituminous coal miners, on the other hand, and the millwork and furniture industries and building trades have fallen behind the movement of the cost of living, while as to the remaining industries there is, for

the most part, a lack of agreement between the several series of relative wages, and therefore more or less uncertainty as to whether they are running ahead or behind the cost of living; all of which reënforces the point that it is difficult to make that nebulous and elusive personage—the average man—stand up and speak

is the valuable table of average weekly earnings in New York State factories published in the *Labor Market Bulletin* of the New York State Industrial Commission Bureau of Statistics and Information. These figures are derived from reports received from over 1,600 firms with over 600,000 employees and represent 55 industries,

COMPARISON OF COURSE OF AVERAGE WEEKLY EARNINGS IN NEW YORK STATE FACTORIES WITH COURSE OF RETAIL FOOD PRICES IN THE UNITED STATES



clearly about his economic situation. If we should descend from industries to particular occupations we would find a similar lack of simplicity and uniformity. Let us therefore travel in the opposite direction and take a glance in conclusion at some mass data in which even industrial lines are disregarded.

The only set of figures now available which comes down to the close of 1919

arranged in 11 groups. The accompanying chart which is reproduced from page 6 of the December issue presents not only the movement of weekly earnings but also the retail prices of foods, as published by the United States Bureau of Labor Statistics.

It will be recalled that during the period when the cost of living, as represented by the weighted items of a

family budget, was increasing 83 per cent, the cost of food—the largest single item in the budget—increased 80.7 per cent. It is apparent, in these circumstances, that the curve for retail food prices possesses a considerable significance as reflecting the upward trend of living costs generally. During January, 1920, the upward movement of wages slackened, the increase for the month being less than 1 per cent, while the trend of food prices continued unchanged; this means that in January the two curves were again approaching each other.³¹ Apparently, therefore, after a long chase marked by a number of distinct phases, which it is not possible here to analyze, the earnings of the factory workers of New York State in the fall of 1919 had again caught up with the cost of living, and had continued to slightly exceed it (in terms of index numbers) for a longer period than at any time during the course of the war.

The foregoing discussion throws some light, it is hoped, upon the relative level or levels of wages at the end of 1919 in comparison with the years before the war; it does not, unfortunately, afford any clue to the more important problem of the absolute adequacy of wages to the normal requirements of the worker and his family. The problem of defining a living wage is as insistently present at the end of the war as it was at its beginning.

Closely related to this question of adequate minimum standards is the still more difficult task of determining what distributive justice requires in the matter of wage payments. To

this end there is need of a careful examination of the movement of profits during the past twenty years, running parallel with the inquiry concerning real wages. Sound conclusions on the subject of wages can be reached only after adequate answers have been made to three questions: (1) How high *are* real wages? (2) How high *should* a minimum comfort wage be? (3) Have wages exceeded, fallen behind or kept even pace with the movement of profits during the period of industrial consolidation which began some twenty or twenty-five years ago?

SUMMARY

1. The cost of living advanced approximately 83 per cent from 1913 to the late autumn (October) of 1919; from October, 1919, up to February, 1920, the movement continued apparently unchecked, the retail price of food increasing 7 per cent in three months.

2. Wages have advanced throughout the field of employment. Occupations which felt least the impulse of war prosperity have lagged behind, while other occupations or industries which were urgently needed to arm and equip our military forces prospered out of proportion to the rising cost of living.

3. The rise of wage rates has been accompanied by a permanent shortening of the working week. In consequence of this change the full-time *weekly* wage in 1920 does not exceed that of 1913 by as much as the *hourly* wage of 1920 exceeds that of 1913.

4. Between 1900 and the beginning of the World War, real wages declined slightly in the United States, with the

³¹ Press releases, New York State Industrial Commission.

result that the position of the American industrial worker was rather worse in 1914 than it had been in 1900.

5. After the outbreak of the war there was a further shrinkage in real wages, especially during 1917 and 1918 (see the New York chart). In the fall of 1919, weekly earnings overtook the retail price of food. At the beginning of 1920 real wages appear, on the average, to have risen to their 1914 level, and it is not impossible that the slight loss sustained between 1900 and 1914 will also be retrieved.

6. This result is being achieved in a period of full employment and insistent labor demand; any widespread falling off in the amount of employment

offered to labor during the continuance of present prices would necessarily result in a decline in real wages and in the standard of living.

7. In conclusion, it may be said that American labor has prospered during the past five years in a negative sense, in that, in spite of high prices, it emerged at the end of 1919 no worse off, on the average, than before; and on the positive side, labor has gained a shorter work day, fuller recognition, and in common with the rest of the population, it has inherited a world which is in many respects, *e.g.* public health, recreation, etc., a better place to live in than was that of 1890 or of 1900.